Earth-Friendly Gardening & Landscaping

The GreenMan

Shady Ideas for Home Landscaping

Summer has finally arrived. The evening air is filled with the seductive smell of cookouts and steamed crab — and the annoying hum of air conditioners. As the mercury keeps inching up into the nineties, the rising cost of keeping cool becomes more of an issue for many homeowners. Fortunately, there are landscaping solutions which can help save on energy costs without forcing you to break a sweat.

By properly positioning trees around our homes and reducing the amount of sunlight striking rooftops, walls, and windows, we can lower cooling costs by up to 25 percent. In fact, this type of natural cooling is much akin to using hats and sunscreen to protect delicate skin from harmful solar radiation.

Typically, the first step in an energy-efficient landscape is to plant a tree or trees on the south or southwest side of your home, where they can block the majority of sunlight, especially that striking your home in the mid- to late-afternoon. A couple of large trees, such as maples, oaks, and ash, will obviously produce the most shade, although smaller trees, such as dogwoods and serviceberry, can effectively screen the sides of a house.

Larger trees should be planted no closer than 20 feet from the house; smaller trees no closer than 15 feet. Among the fastest growing large shade trees are tulip poplars and sycamores, although both have somewhat weak branches and should never be planted where limbs can actually overhang the roof.

Deciduous trees, those which lose their leaves in winter, are more often planted than evergreens, as it generally desirable to allow the sun to provide passive solar heating in winter, at least for walls and windows. However, native evergreens, such as American holly, eastern red cedar, and eastern white pine, can also be used, depending on your overall landscaping theme.

Of course, if you plan to install photovoltaic cells or solar heat collectors on your roof, taking advantage of all that free solar energy, you will want to avoid shading the future location of your solar array. In this case, plant smaller growing trees which will primarily shade walls and windows.

If your property space cannot accommodate large trees, you can provide shading to walls and windows with small trees and shrubs like redbud, viburnum, deciduous azaleas, and inkberry holly. Be sure to keep shrubs about five feet away from the foundation to prevent problems with mold, mildew, and insect pests.

And while working around the foundation, why not use some evergreen shrubs like Mahonia and inkberry holly to shade your heat pump or air conditioner compressor. You will improve their efficience, reduce some of the whining-whirring noise, and screen an otherwise unattractive bit of technology from view. Be careful that plants do not block air flow to and from the devices.

Another creative possibility is to use vines to shade wall areas and windows. Vines can either be trained to cover wall spaces, or can be attached to arbors and trellises. For example, Virginia creeper (or woodbine) can climb up the side of a masonry-covered wall without support, providing lush, attractive shade equaled only by its crimson-purple autumn foliage. Climbing hydrangea (Hydrangea anomala ssp. petiolaris) is also able to climb without support — or damage to building surfaces — and is a hardy and brilliant white-flowering specimen introduced from Asia in the 1860's.

Trellis structures can support a wide variety of vines and climbers, from showy roses to native favorites such as coral honeysuckle, crossvine, virgin's bower, and American bittersweet. You can even take an edible landscaping approach and train pole beans or hyacinth beans to climb up string or wire supports.

It should be noted that shading fully exposed windows is more important than shading walls, most of which are fully insulated. For this reason, arbor structures built along the south side of a house can provide shade like a living awning, but with a great deal more beauty. You can train a host of interesting vines along the arbor, from edible kiwis and grapes, to ornamental hops and American wisteria.

Less involved window shading can be created with ordinary window boxes. Consider using some of the more colorful varieties of sweet potato vine, featuring dark purple, chartreuse, or tricolored leaves. These can be planted in your window box along with other colorful annuals and then trained to grow up and around the window frame. You will block out some of the sun's heat while providing a dazzling window to the outdoors.

After addressing some of the direct sources of sunlight, think about the energy reflected from patios and walkways. Even the air temperature over grass is about ten degrees cooler than that over asphalt or other artificial surfaces. Simply shading these "hardscaped" areas can help appreciably, or you might want to reduce or replace concrete paths with natural, living materials, such as thyme lawns or mulched paths with herbal borders. Moreover, you can improve on the air conditioning benefit of lawns by replacing turf with clumps of native and ornamental grasses, perennial beds, and colorful groundcovers.

Keep in mind that landscaping to reduce energy costs can extend beyond merely shading rooftop and windows. According to Ann Elsen, the County's energy planner, "If it looks cool, it is cool." Elsen is referring to the impression we have of a typical forest scene: green, serene, and lush with tall trees, ferns, and the leafy masses of smaller trees and shrubs. It always seems quite a bit cooler in such inviting environments because wooded areas really are cooler.

Trees and vegetation actually provide some chilling benefits through evaporative cooling, the transpiration of water through plant leaves. Research by the Lawrence Berkeley National Laboratory found that midday air temperatures were up to six degrees cooler in tree-shaded areas compared to treeless neighborhoods.

If you want to lower summer temperatures all around your home, try creating your own personal forest by grouping trees together in small groves and expanding green areas with ground covers and shrubs.

The more tree cover you establish, especially if it can help shade hot streets, sidewalks, and driveways, the cooler your immediate landscape will be. Naturally, if you work through a community association to get trees planted along streets and common areas, you can beautify your neighborhood, and enhance overall property values, while keeping all of your homes more comfortable and energy efficient. Now that's a cool idea!

Planting Suggestions

Large Trees	**Mature Height**
American Holly	40-60'
Sycamore	40-60'
Eastern Red Cedar	30-40'
Maple (Red, Silver)	40-60'
Tulip Poplar	70-120'
Oak (Red, Yellow)	40-90'

Small Trees	**Mature Height**
Flowering Dogwood	15-30'
Eastern Redbud	25'
Inkberry Holly	6-8'
Spicebush	6-15'
Witch Hazel	3-15'
Mahonia	6'

Vines	**Mature Height**
Crossvine	30-45'
Trumpet Vine	30'+
Leather Flower	6'
Virgin's Bower	6-12'
American Bittersweet	to 45'
Virginia Creeper	to 45'

The GreenMan Show is produced for County Cable Montgomery by the Department of Environmental Protection (DEP) and the Office of Public Information. It airs daily on Cable Channel 6 and can also be viewed on the Internet. For a complete schedule and online access, visit **www.greenmanshow.com.**

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